

Enea announces OSE Multicore Edition

New Hybrid AMP/SMP Multicore RTOS Delivers Industry Leading Scalability and Performance

Enea® (Nordic Exchange/Small Cap/ENEA), a global software and services company focused on solutions for communication-driven products, today announced the immediate availability of Enea OSE Multicore Edition, a unique and innovative kernel design that combines the advantages of both traditional Asymmetric Multiprocessing (AMP) and Symmetric Multiprocessing (SMP) while avoiding the disadvantages inherent in both programming models. This powerful solution will help developers of advanced systems achieve the performance, scalability and ease-of-use needed to meet increasingly stringent market requirements.

Enea OSE Multicore Edition kernel delivers on the ease-of-use promise of SMP when it comes to simplicity, flexibility, application transparency and debugging. But it behaves like an AMP RTOS when it comes to scalability, determinism and performance. OSE Multicore Edition provides a homogeneous and portable application framework with linear scalability for high speed processing applications while at the same time being a feature rich RTOS offering POSIX file systems, SMP threading and full IP networking support. API compatibility with Enea OSE means legacy OSE applications will be fully supported - guaranteeing a smooth transition to multicore processors. In addition, Enea OSE Multicore Edition offers the option of a “friction free” execution model on individual processor cores that can host run-to-completion software at bare metal speed.

“Enea OSE Multicore Edition was primarily designed to meet the performance and scalability requirements in the networking market, but will address high performance applications equally well in a wide range of industry segments.” says Mathias Båth, senior vice president of marketing at Enea. “The advantages of the hybrid AMP/SMP RTOS are such that they will be appreciated whenever ease-of-use, performance and scalability are key considerations”.

The hybrid AMP/SMP kernel in OSE Multicore Edition is based on a number of distinct innovations:

- Essential services in OSE are implemented according to a micro kernel model which allows IP stacks, file systems, application loaders, etc. to be located on different cores, while applications can access these services regardless of location in the system (location transparency).
- A kernel that instantiates a separate scheduler on each core with associated data structures to preserve determinism and realtime characteristics.



- User defined process migration and load balancing based on low intrusion mechanisms to measure CPU load on each core.
- A lightweight kernel internal IPC mechanism called kernel events used to perform asynchronous, cross core transactions in order to avoid the use of fine-granular locking designs, which has a detrimental effect on performance.

Enea OSE Multicore Edition lies at the heart of Enea's comprehensive approach to supporting developers working on multicore systems. In addition to its high performance RTOS, Enea provides the Eclipse-based Enea Optima development tools, a suite of powerful system debug and profiling tools. Completing Enea's solution is a professional services team unmatched in the industry. Enea consultants are prepared to support the full range of the development lifecycle from multicore architectural advice, to platform adaptation, to application development that unleashes the power of today's processors.

For more information on the most advanced and comprehensive multicore solution available go to www.enea.com

For more information

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About Enea

Enea is a global software and services company focused on solutions for communication-driven products. With 40 years of experience Enea is a world leader in the development of software platforms with extreme demands on high-availability and performance. Enea's expertise in real-time operating systems and high availability middleware shortens development cycles, brings down product costs and increases system reliability. Enea's vertical solutions cover telecom handsets and infrastructure, medtech, automotive and mil/aero. Enea has offices in Europe, North America and Asia. Enea is listed on Nasdaq OMX Nordic Exchange Stockholm AB. For more information please visit enea.com or contact us at info@enea.com.



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